README for GIMCOS_v1.0
GOPT-COS are SIF-based estimates of plant COS fluxes
Files sourced from Nicholas Parazoo 07/15/21

File info:
All files are in NetCDF format.
Variable names are the same as file names.
Each tarball file contains 12 monthly files for individual years

Variable: latitude
Dimension: 91x1
Grid spacing: 2.0 degrees
Coverage: 90S-90N

Variable: longitude
Dimension: 144x1
Grid spacing: 2.5 degrees
Coverage: 180W-180E

Variable: COS_Flux
Dimensions: nhrx91x144
Dimension 1: time (nhr = 4 * days per month)
Dimension 2: latitude location
Dimension 3: longitude location
Description: 6 hour average plant OCS fluxes in kgS/km^2/s estimated from a semi-empirical SIF-based constraint (DOI:10.1002/essoar.10505574.1) that uses a simplified biome-specified linear regression method that coverts GPP into COS plant uptake from the mechanism of the SiB4 model (https://doi.org/10.1029/2018MS001540), effectively accounting for changes in leaf relative uptake between Plant Functional Types. OCO-2 SIF derived GPP estimates following Parazoo et al 2014 (https://doi.org/10.1111/gcb.12652). The GOPT-COS estimates native resolution is 2.5x2 degree in space and 6 hrly in time.

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